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Repperger named AIMBE Fellow Award Recipient

by Tiffany Pitts, ASC Public Affairs

WRIGHT-PATTERSON AFB, Ohio—Dr. Daniel Repperger, electronics engineer in the Air Force Research Laboratory Human Effectiveness Directorate, recently won the American Institute for Medical and Biological Engineering (AIMBE) Fellow award for rehabilitation engineering.

The nomination was based on studies involving Air Force technology designed to improve the quality of life for veterans who need assistance with activities of daily living, according to Repperger.

"Two previous, and one ongoing Department of Veterans Affairs studies, focused on activities such as eating, writing, using a computer, and other tasks most people take for granted," Repperger said.

The first VA effort used robotic devices to help people move their hands and arms in a smooth, consistent fashion. "People with certain disabilities have difficulty in controlling their arms and legs in performing tasks," Repperger said.

The second VA initiative involved the development of electrical devices called Transcutaneous Electric Nerve Stimulation (TENS) that helped reduce pain in the lower back.

The current VA effort involves a joint study between the University of Pittsburgh and patients at the VA center in Pittsburgh, Pa. Patients suffering from unsteady hand motions (MS) are being evaluated so that physicians learn how to reduce this tremor. New electronic devices— palm pilot (PDA or personal digital assistant device) are being used to record the data for the study.

"These devices demonstrate how technology developed within the Air Force can be used in the private sector, especially for improving the quality of lives for AF veterans," Repperger said.

The American Institute for Medical and Biological Engineering is a nonprofit organization that serves to promote the national interest in science, engineering and education and to recognize individual and group achievements and contributions to the field of medical and biological engineering. @